

DESCRIPTION

Bending Apparatus

Technical Field

The present invention relates to a bending apparatus having a foot switch capable of moving to a point in front of a positioning point of a workpiece at each bending sequence in step bending.

Background Art

Hitherto, according to a bending apparatus such as a press brake, a line to be bent is successively selected based on product information to determine a bending sequence (manually or automatically), tools including a punch attached to an upper table and/or a die attached to a lower table, and a tool (processing station) at each bending sequence. The predetermined tools are put at predetermined positions on upper and lower tables based on the determined tool layout, then the foot switch is turned on to start up a ram on the upper or lower table, and a workpiece is bent.

In a bending apparatus like that, recently, such a step bending has become mainstream that multiple processing stations are provided and a worker moves to a predetermined processing station at each bending sequence so that multiple processing steps can be performed as products have been complicated.

With respect to the step bending, for example, as disclosed in Japanese Patent Application Laid-Open No. 9-295057 and No. 2000-351018, a foot switch is moveable to a point in front of a predetermined processing station at each bending sequence, or to a point in front of a center point C of back-ends of a workpiece against which abutments are abutted (Fig.3 in Japanese Patent Application Laid-Open No. 9-295057), whereby the burden of workers is reduced.